

**TECHNICAL REVIEW AND EVALUATION
OF APPLICATION FOR
AIR QUALITY PERMIT NO. 1000402**

I. INTRODUCTION

This Title V permit is for the operation of the Citizens Utilities Company (Citizens), Valencia Power Plant, which is located in the City of Nogales, Santa Cruz County of Arizona. The Valencia Power Plant is used for peaking power and area voltage support purposes in Santa Cruz County.

A. Company Information

Facility Name:	Citizens Utilities Company
Mailing Address:	P.O. Box 280 Nogales, AZ 85628-0280
Facility Location:	1741 N. Grand Ave Nogales, Santa Cruz County, AZ

B. Attainment Classification (Source: 40 CFR §81.303)

The source is in an attainment area for TSP, SO₂, CO, Ozone, and NO₂. The source is in a nonattainment area for PM-10.

II. PROCESS DESCRIPTION

The electricity generating equipment generally operates only at the request of Arizona Public Service (APS). Citizens is usually called upon only during the hot weather months of late spring and summer when the demand on APS' s resources is high and needs assistance in meeting its loads or maintaining voltage levels.

There are three Hitachi MS 5001 M-series combustion gas turbines and four Alco diesel internal combustion (IC) engines. There is a total annual power generation limit of 47,000 MW-hours per year facility wide. This limit is to avoid the facility from becoming major for PSD.

The three Hitachi combustion gas turbines were installed in 1988. The turbines are rated at 16.8 MW each. Turbines can be fired on natural gas, distillate fuel, or a combination of the two fuels. The power generations from these engines are limited to 45,000 MW-hr per year for the base mode and 36,000 MW-hr per year for the power augmentation mode to avoid triggering PSD review.

The four Alco diesel engine generators were installed in 1949. These engines are each rated at 950 KW. These dual-fuel engines run primarily on natural gas except during startup using diesel. The installation permit limits power generation from these engines to 2000 MW-hr per year to avoid triggering PSD review.

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The maximum process rates and operating hours of the significant points of emissions at The Valencia power generating facility are summarized in the Table 1.

Table 1: Maximum Process Rates

Unit	Rating	MW-hr/yr
Turbine #1	16.8 MW	Combined power generation shall be less than 45,000
Turbine #2	16.8 MW	
Turbine #3	16.8 MW	
IC Engine #4	950 KW	Combined power generation shall be less than 2,000
IC Engine #5	950 KW	
IC Engine #6	950 KW	
IC Engine #7	950 KW	
Total		47,000

The Valencia power generating facility has proposed to burn natural gas and diesel fuel (diesel fuel). Natural gas is supplied via a pipeline owned by El Paso Natural Gas (EPNG) that runs through Nogales. Diesel fuel is trucked from Tucson and stored onsite in two 50,000 gallon diesel storage tanks.

The IC engines are fueled with diesel fuel upon startup. After operating on diesel fuel for 15 to 30 minutes, natural gas is introduced over approximately a 15-minute period and displaces 90% of the diesel. Therefore, the IC engines normally operate on a mixture of 90% natural gas and 10% diesel fuel.

The gas turbines are operated on 100% natural gas, 100% diesel fuel, or any combination of the two fuels. During typical operations, a single turbine operates on 100% natural gas. The capacity of the natural gas pipeline that feeds the power plant is adequate to provide 150% of the peak demand of a single turbine. This means that in the rare event that all three turbines are operated simultaneously, one turbine could be fueled on 100% natural gas, one could be fueled on 100% diesel fuel, and the third would be fueled on 50% natural gas and 50% diesel fuel.

The Valencia power generating facility utilizes a water injection system on the three Hitachi gas turbines to control NO_x emission. There is a continuous monitoring system (CMS) to monitor and record the fuel consumption and the ratio of the water to fuel being fired in the turbine.

III. EMISSIONS CALCULATIONS

Citizens has the capability of operating under different scenarios as described in Section II of this Technical Remark document. Typical operating parameters of the turbines and the IC engine units

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are given in Table 3.

Table 3: Typical Operating Parameters

Parameter	Typical Value	
Internal Combustion Engines		
Heat rate (at operating conditions)	9400	Btu/kw-hr
Maximum hourly fuel consumption (each engine)	8.93 8.6 64	MMBtu/Hr MSCF/Hr (natural gas) Gal/Hr (No.2 diesel)
Maximum annual fuel consumption (total, four engines)	18,800 18.05 135 x 10 ³	MMBtu/Yr MMSCF/Yr (natural gas) Gal/Yr (No.2 diesel)
Gas Turbines		
Heat rate (at operating conditions)	16,500	Btu/KW-hr
Maximum hourly fuel consumption (each engine)	222.75 214 1591	MMBtu/Hr MSCF/Hr (natural gas) Gal/Hr (No.2 diesel)
Maximum annual fuel consumption (total, three engines)	742,500 713 5.3 x 10 ⁶	MMBtu/Yr MMSCF/Yr (natural gas) Gal/Yr (No.2 diesel)

Table 4 summarizes the potential to emit (PTE), allowable emissions, and test results for these units. The emission factors used to calculate the potential to emit are from AP-42 (1/95 ed.). The allowable emissions are calculated using the standards under NSPS Subpart GG or A.A.C. R18-2-719. The HAPs emissions calculations are located in the permit application.

For IC engines, there are no emission factors for burning natural gas in AP-42. Only emissions from burning diesel fuel and dual fuel (combination of natural gas and diesel) are calculated.

For gas turbines, Citizens submitted the PTE for NO_x and CO which were based on data supplied by the water injection system vendor, Turbine Technologies Services. Emission factors for VOCs and PM₁₀ were taken from AP-42. Emission factors for SO₂ were also taken from AP-42 and Citizens has voluntarily accepted a limit of 0.5% sulfur content by weight to avoid PSD and to meet NAAQG. The emission calculations are located in the permit application.

In order to have enough margins for error, Citizens has voluntarily accepted a limit of 200 tons/yr for CO emissions from the three turbines. This limit of 200 tons/yr is derived by limiting the power generating rate to 36,000 MW-hr in power augmentation mode, a CO emission limit to 10 lbs/MW-hr in power augmentation mode, and 4.4 lbs/MW-hr in power base mode. The 200 tons/yr limit is calculated as follows:

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CO emissions from the power augmentation mode

$$\begin{aligned} &= 10 \text{ (lbs/MW-hr)} \times 36,000 \text{ (MW-hr/yr)} / 2000 \text{ (lbs/ton)} \\ &= 180 \text{ tons/yr} \end{aligned}$$

CO emissions from the power base mode

$$\begin{aligned} &= 4.4 \text{ (lbs/MW-hr)} \times (45,000 - 36,000) \text{ (MW-hr/yr)} / 2000 \text{ (lbs/ton)} \\ &= 19.8 \text{ tons/yr} \end{aligned}$$

Total emissions from the turbines

$$\begin{aligned} &= 19.8 + 180 \\ &= 200 \text{ tons/yr} \end{aligned}$$

Representative emissions from Citizens are presented in the following table. They may be used for the following purposes:

- (I) Ascertaining “major source” status of the Valencia Power Plant;
- (ii) Comparing source potential-to-emit with emission rates allowable by relevant standards; and
- (iii) Comparing source potential-to-emit with the test data.

This comparison serves as a summary of existing information on emissions from the Valencia power generating facility. These emissions figures (except for the ALLOWABLE emissions) are **not** meant to be emissions limitations of any form.

Table 4: Comparison among PTE, Allowable Emissions, and Test Data

Unit	Pollutant	PTE ⁽¹⁾ (tpy)	Allowable ⁽¹⁾ (tpy)	Test Data (tpy)
Turbines #1, #2 and #3 (Natural gas)	PM	10.12	n/a	n/a
	SOx	4.50	n/a	n/a
	NOx	90.0	99.0	9.39 ⁽²⁾
	CO	65.70	200	n/a
Turbines #1, #2 and #3 (Diesel fuel oil #2)	PM	12.8	n/a	n/a
	SOx	169.6	n/a	n/a
	NOx	99.0	99.0	15.47 ⁽²⁾
	CO	200	200	n/a

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Unit	Pollutant	PTE ⁽¹⁾ (tpy)	Allowable ⁽¹⁾ (tpy)	Test Data (tpy)
Alco IC engines #4, #5, #6 and #7 (Diesel)	PM	0.54	5.8	n/a
	SO _x	5.43	9.4	n/a
	NO _x	30.89	n/a	n/a
	CO	7.06	n/a	n/a
Alco IC engines #4, #5, #6 and #7 (Dual Fuel: Natural gas and fuel oil #2)	PM	0.54	5.8	n/a
	SO _x	0.44	9.4	n/a
	NO _x	27.16	n/a	n/a
	CO	6.84	n/a	n/a

Notes: ⁽¹⁾ The numbers shown in the table are the totals for the engines listed
⁽²⁾ The data varies with different water-to-fuel ratios
n/a No data available

IV. COMPLIANCE HISTORY

A. Inspections

Inspections are being regularly conducted on this source to ensure compliance with the permit conditions. Table 5 summarizes some of the recent inspections that have been conducted on the source and the results of the inspections.

Table 5: Inspection Summary

Inspection Date	Type of Inspection	Results
05/29/98	Level 1 (FAR No. 19533)	Performance test was conducted Passed test
05/28/97	Level 1 (FAR No:17445)	Performance test was conducted. Passed test.
04/22/97	Level 1 (FAR No: 17318)	Performance test was conducted Passed test
11/10/92	FAR No. SRO-OAQ-3031	Routine unannounced inspection. No compliance issue.
6/7/89	FAR No. SRO-AQ-1912	Routine unannounced inspection. There were no visible emissions coming from the turbines. A six minute observation yielded an average opacity for the diesel engines of 14%.
12/20/88	FAR No. SRO-AQ-1793	Routine unannounced inspection. The source was in the process of installing new generators. No units were in operation.

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08/26/86	CDS requirement (FAR No. SRO-AQ-1249)	No units were in operation.
07/08/85	FAR No. SRO-AQ-888	Routine inspection. Visible emissions observation was made. The average opacity for each unit were: IC-1: 5%, IC-2: 5%, IC-3 & IC-4: 0%.

B. Excess Emissions

There has been no case of excess emissions from Citizens.

C. Testing

The results of the three latest compliance tests have been summarized in Table 6. Results show that the units are in compliance with the applicable standards.

Table 6: Test Results

Date of Test	Equipment Tested *	Pollutants Tested	Results
05/29/98	Gas turbine #3	NOx The engine was tested for natural gas fuel. The targeted MW was 16.5 MW and the water used for NOx control was approximately 18.79 gal/min. The gas flow was approximately 3500 scfm. The testing was conducted at 100% load (power augmentation mode)	Passed
05/28/97	Gas turbines #1, #2, #3 in power augmentation mode, it is the maximum power output the turbine can produce.	NOx Turbine #1: 100% #2 diesel Turbine #2: 30% natural gas & 70% #2 diesel fuel Turbine #3: 100% natural gas	Passed
04/22-23/97	Gas turbine #2, tested for all four loads of 35%, 50%, 75% and 100%	NOx The turbine was tested by firing natural gas and #2 diesel fuel oil separately.	Passed

Note: * Gas turbines #1, #2, and #3 are identical units. Based on Arizona Testing Manual, Permittee is allowed to rotationally test the units.

D. Compliance Certifications

After the issuance of this Part 70 permit, the Permittee will be required to submit compliance certifications every six months as indicated in Section VII of Attachment "A" of the permit.

Citizens states in the permit application that it will meet all applicable requirements with a future compliance date, including applicable compliance assurance monitoring requirements,

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in a timely manner. Also Citizens has specified in the permit application that it operates all emission units in compliance with applicable requirements at the time of application submittal, with the exception of the following:

- (a) R18-2-303(B) schedule for submittal of Class I permit application; and
- (b) R18-2-901, Standards of Performance for Stationary Sources: Subpart GG (Stationary Gas Turbines)

Compliance with these applicable requirements has been achieved as follows:

- (a) Submit the application for a Class I permit.

The reason for missing the deadline for the Class I permit application submission is that ADEQ did not consider Citizens as a Class I source at that time. Citizens sent a letter to ADEQ to indicate that Citizens was a major source and subsequently submitted a permit application.

- (b) Meet the requirements of Consent Order Docket No. A-1-97.

Citizens submitted a request on July 3, 1996, for a formal determination regarding NSPS Subpart GG applicability. ADEQ issued a consent order. The contents of the order are summarized as follows:

- a. Citizens installed G.E. MS5000 LA-series turbines and at the same time performed on-site modifications to these turbines making them G.E. MS 5000, Model M turbines. This upgrade increased the output of the turbines resulting in an increase in emissions from the turbines. The modification occurred after October 3, 1977; therefore, NSPS Subpart GG became applicable to the turbines.
- b. The NSPS is an applicable requirement for the turbines at Citizens.

Citizens has complied with all requirements of the consent order. The changes have been reflected in the minor permit revision #1000589 which has incorporated NSPS Subpart GG requirements into the permit conditions.

V. APPLICABLE REGULATIONS VERIFICATION

The Permittee has identified the applicable regulations that apply to each unit in its permit application. Table 7 summarizes the findings of the Department with respect to applicability or non-applicability of applicable regulations that apply to each unit. Installation Permit and other previous permit conditions are discussed under Section VI of this technical review document.

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Table 7: Applicable Regulations Verification

Unit ID	Description	Start-up date	Control Equipment	Applicable Regulations	Standard
# 1	Hitachi MS-500 gas turbine	1988	Water injection	- Subpart GG: 40 CFR §60.332 40 CFR §60.334 40 CFR §60.335 - Installation Permit No. 45001	The unit was modified after October 3, 1977 and the gas turbine has a heat input at peak load ≥ 10.7 gigajoules per hour. Therefore, the turbine is subject to 40 CFR §60 Subpart GG. In Subpart GG, NOx: $STD=0.0075 \cdot (14.4)/Y + F$ sulfur content: 0.8% by weight However, in order to not trigger PSD review, the sulfur content shall be less than 0.65% by weight. Therefore, the 0.65% sulfur content by weight requirement will be carried over into the Title V permit.
# 2	Hitachi MS-500 gas turbine	1988	Water injection	Same as above	Same as above
# 3	Hitachi MS-500 gas turbine	1988	Water injection	Same as above	Same as above
# 4	Alco IC engine	1949	No	A.A.C. R18-2-719.A A.A.C. R18-2-719.B A.A.C. R18-2-719.C.1 A.A.C. R18-2-719.E A.A.C. R18-2-719.F A.A.C. R18-2-719.H A.A.C. R18-2-719.I A.A.C. R18-2-719.J A.A.C. R18-2-719.K Installation Permit No. 45001	The start-up date of this unit is prior to October 3, 1977, and hence is not subject to 40 CFR §60, Subpart GG. This unit therefore is subject to A.A.C. R18-2-719. In A.A.C. R18-2-719, this unit is subject to an opacity standard of 40% and a sulfur dioxide standard of 1.0 lb/MMBtu. However, in order to not trigger PSD review, the sulfur content shall be less than 0.65% by weight. Therefore, the 0.65% sulfur content by weight requirement will be carried over into the Title V permit.
# 5	Alco IC engine	1949	No	Same as above	Same as above
# 6	Alco IC engine	1949	No	Same as above	Same as above
# 7	Alco IC engine	1949	No	Same as above	Same as above
	50,000 Gallon Diesel Storage Tank	1997	Yes	40 CFR 60.110b (c) 40 CFR 60.116b	The tank was installed after July 23, 1984 and is ≥ 40 cubic meter. Therefore, the tank is subject to 40 CFR §60 Subpart Kb. However, the vapor pressure of diesel is lower than 3.5 KPa, under 40 CFR 60.110(c), this tank is only subject to paragraphs (a) and (b) of 40 CFR 60.116.b .

VI. PREVIOUS PERMITS AND CONDITIONS

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A. Previous Permits

Date Permit Issued	Permit #	Application Basis
Pending	1000563	Significant permit revision
01/24/97	1000589	Minor permit revision
05/05/93	191209-96	Operating Permit
07/17/91	4402-94	Operating Permit
10/07/87	# 45001	Installation Permit

B. Previous Permit Conditions

1. Significant Permit Revision Number 1000563

This significant permit revision was issued in 1999. The revision allows Citizens Utilities Company to operate its three GE Model MS5000 gas turbines in the power augmentation mode in order to increase the power output from the turbines. Operation in power augmentation mode would increase carbon monoxide (CO) emissions. However, the Permittee has voluntarily accepted the emission limits for CO in order to avoid triggering any other applicable requirement.

All the conditions listed in this permit have been carried over in essence to the Part 70 renewal permit. Hence, the conditions in this permit are hereby being replaced by the corresponding conditions in the Part 70 renewal permit.

2. Minor Permit Revision Number 1000589

This minor permit revision was issued on January 24, 1997, for installation of a water-injection system and intake air humidification on three existing Hitachi Model MS5000 gas turbines and the construction of an additional 50,000 gallon Diesel fuel storage tank at the power plant.

All the conditions in this permit have been carried over in essence to the Part 70 renewal permit. Hence, the conditions in this permit are hereby being replaced by the corresponding conditions in the Part 70 renewal permit.

3. Operating Permit Number 191209-96

This operating permit was issued on May 5, 1993, to operate four Alco, dual-fired, internal combustion engine-generator sets rated at 1,000 KW each and three General Electric Company MS50001 model M combustion turbine generator units.

All the conditions in this permit have been carried over in essence to the Part 70

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renewal permit. Hence, the conditions in this permit are hereby being replaced by the corresponding conditions in the Part 70 renewal permit.

4. Operating Permit Number 4402-94

This operating permit was issued on July 17, 1991 to operate four Alco, dual-fired, internal combustion engine-generator sets rated at 1,000 KW each and three General Electric Company MS50001 model M combustion turbine generator units.

All the conditions listed in this permit have been carried over in essence to the Part 70 renewal permit. Hence, the conditions in this permit are hereby being replaced by the corresponding conditions in the Part 70 renewal permit.

5. Installation Permit Number 45001

This installation permit was issued on October 7, 1987 for installation of three General Electric Company MS5001, model M or LA gas turbine generator units. The following conditions have been carried over into permit #1000402.

a. The limit of operation:

- (1) *“Permittee shall not be allowed to operate the four ALCO internal combustion engines in such a manner that their combined electrical generation for any one year exceeds 2,000 MW-hrs.”*
- (2) *“Permittee shall not be allowed to operate the three G.E. gas turbines in such a manner that their combined electrical generation for any one year exceeds 45,000 MW-hrs.”*

b. Recordkeeping and Reporting Requirements:

- (1) *“Permittee shall report the number of hours each Alco engines and G.E. turbines operated; the quantity of electrical generation produced by Alco engines and G.E. turbines; the type and quantity of fuel used by each units; quantity of fuel oil shipped and either a certified statement by fuel supplier or the results of a laboratory analysis showing the percentage of sulfur contained in each shipment of fuel oil sent to the station.”*

All the conditions listed above have been carried over in essence to the Part 70 renewal permit. Hence, the conditions in this permit are hereby being replaced by the corresponding conditions in the Part 70 renewal permit.

VII. PERIODIC MONITORING

Gas Turbine Nos. 1, 2 and 3

NOx: The turbines are subject to the NOx standard of 40 CFR 60 Subpart GG. The turbines burn primarily natural gas and are capable of burning fuel oil.

Natural Gas: When pipeline quality gas is burned, the requirements of 40 CFR 60.334(b): monitoring of fuel bound nitrogen is waived as per EPA Memorandum Authority for Approval of Custom Fuel monitoring Schedules Under NSPS Subpart GG, August 14, 1987. Number 1 of the enclosure states: "Monitoring of fuel nitrogen content shall not be required while natural gas is the only fuel fired in the gas turbine."

Fuel Oil: When fuel oil is burned, the Permittee is required to keep on record fuel supplier certifications.

An annual testing for NOx at full load and power augmentation mode is required to demonstrate compliance with NSPS Subpart GG for the NOx emission limit.

SO2: The units are subject to the sulfur content standard of 0.5% by weight after streamlining the sulfur standard as an emission limitation.

Natural gas: "Pipeline-quality" natural gas has to conform to standards approved by the Federal Energy Regulatory Commission (FERC). One of the FERC standards limits the sulfur content in the gas to less than 5 grains/100 scf (which is equivalent to 0.017 weight percent of sulfur). Another standard specifies that the heating value must be greater than or equal to 967 Btu per cubic foot. Valencia power plant runs the gas turbines with fuel drawn from their pipeline, and therefore it was decided that maintaining a copy of the FERC approved Tariff agreement on-site would be an adequate means of complying with the monitoring requirements for the particulate, opacity and fuel use standards.

Fuel oil: When fuel oil is burned, the Permittee is required to keep on record fuel supplier certification including the following information:

1. The name of the oil supplier;
2. The sulfur content and the heating value of the fuel from which the shipment came; and
3. The method used to determine the sulfur content of the oil.

Table 4 compares the PTE, allowable emissions, test data, and actual emissions for this unit.

Permittee is also required to operate and maintain a continuous monitoring system to monitor

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and record the fuel consumption and the ratio of water to fuel being fired in the turbine under 40 CFR §60.334(a).

CO: There is no CO standard in 40 CFR 60 Subpart GG. However, when using the water injection system to cool flame temperature and control NOx emissions, CO emissions will be increased. However, the Permittee has voluntarily accepted a power generation limit, and CO emission limits which keep the CO emissions below 200 tons per year. The Permittee is required to monitor total power generating rate, and the dates and hours of operation for each turbine. An annual test for CO at full loads and power augmentation mode is required to demonstrate compliance with CO limit.

Production Limitation: Under the installation permit, there is also a power generation limit to avoid PSD. The Permittee is required to monitor total power generation, and the dates and hours of operation for each turbine.

IC Diesel Engines Nos. 4,5,6, and 7

Opacity: The IC engines are subject to the opacity standard of 40% in A.A.C. R18-2-719.E. IC engines burn natural gas and fuel oil No. 2.

Natural gas: Natural gas is a clean burning fuel and emissions do not exceed the allowable emission limit. Hence, no monitoring is required when burning natural gas.

Fuel oil: When fuel oil is burned, the Permittee is required to monitor and record opacity according to the following schedule:

1. When fuel oil is burned continuously for a time period > 48 hours but less than 168 hours, then one EPA Method 9 reading is required.
2. When fuel oil is burned continuously for a time period > 168 hours, then for each 168 period one EPA Method 9 reading is required.

The Permittee is required to record the dates and hours of operation of the IC engines. The time period of between 48 and 168 hours was established through meeting with the stakeholders.

PM: The units are also subject to the particulate matter emissions standard in A.A.C. R18-2-719.C.1.

Natural gas: Natural gas is a clean burning fuel and results in negligible particulate matter emissions as demonstrated by engineering calculations and tabulated under

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the PTE column in Table 4. Therefore, it was determined that a verification through engineering calculation would fulfill the requirements for periodic monitoring when burning natural gas.

Fuel oil: When fuel oil is burned in the unit, the Permittee is required to monitor the heating value and ash content of the fuel. This information is located in the contractual agreement with the liquid fuel vendor.

Ash content is a good indicator for particulate matter emissions, monitoring it would help the agency to "ballpark" the particulate matter emissions. No engineering estimation using ash content is prescribed in the permit since it could be interpreted to incorrectly correlate particulate matter emissions to ash content only. The Permittee is required to keep on record a copy of the contractual agreement.

SO_x: The units are subject to the sulfur dioxide standard in A.A.C. R18-2-719.F. This standard applies only when the unit burns fuel oil. A.A.C. R18-2-719.J requires reporting of all periods when the sulfur content of the fuel exceeds 0.5 percent by weight and this has been included in the permit as an emission limitation/standard.

Natural gas: "Pipeline-quality" natural gas has to conform to standards approved by the Federal Energy Regulatory Commission (FERC). One of the FERC standards limits the sulfur content in the gas to less than 5 grains/100 scf (which is equivalent to 0.017 weight percent of sulfur). Another standard specifies that the heating value must be greater than or equal to 967 Btu per cubic foot. Valencia power plant runs the gas turbines with fuel drawn from their pipeline, and therefore it was decided that maintaining a copy of the FERC approved Tariff agreement on-site would be an adequate means of complying with the monitoring requirements for the particulate, opacity and fuel use standards.

Fuel oil: When fuel oil is burned, the Permittee is required to keep on record fuel supplier certification including the following information:

1. The name of the oil supplier;
2. The sulfur content and the heating value of the fuel from which the shipment came from; and
3. The method used to determine the sulfur content of the oil.

Permittee is required to make engineering calculations for SO_x emissions using the information from above according to the following equation for each fuel delivery:

SO₂ (lb/MMBtu)

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$$= \frac{2.0 \times [\text{Weight percent of sulfur}/100] \times [\text{Density (lb/gal)}]}{[(\text{Heating value (Btu/gal)}) \times (1 \text{ MMBtu}/1,000,000 \text{ Btu})]}$$

Table 4 compares the PTE, allowable emissions, test data, and actual emissions for this unit.

NOx: Since there is no applicable requirement, no monitoring is required.

Production Limitation: Under the installation permit, there is also a power generation limit to avoid PSD. The Permittee is required to monitor total power generation, and the dates and hours of operation for each turbine.

50,000 Gallon Diesel Storage Tank

The diesel storage tank is subject to paragraphs (a) and (b) of 40 CFR 60.116.b . The Permittee is required to keep copies of all records showing the dimension of the storage vessel and the analysis showing the capacity of the storage vessel for at least 5 years.

Other Periodic Activities

Spray Painting

Citizens has indicated in the permit application that there might be a few occasions on which spray painting activities are conducted on-site. R18-2-727 and R18-2-702(B) are applicable requirements, and as such, have to be included in the permit. R18-2-727(A) and R18-2-727(B) are included in the approved State Implementation Plan (SIP). R18-2-727(c) and R18-2-727(D) are also a part of the approved SIP. They are present in the definition's section of the SIP as R9-3-101.117. EPA approved SIP provision R9-3-527.C is not present in the amended rule. However, R9-3-527.C is an applicable requirement, and is federally enforceable till the current State SIP is approved by the EPA. It was decided to prescribe minimal monitoring requirements for this activity.

Solvent Degreasing

Citizens has indicated in the permit application that there might be a few occasions on which solvent degreasing activities are conducted on-site. R18-2-730F is an applicable requirement, and as such, have to be included in the permit. It was decided to prescribe minimal monitoring requirements for this activity.

Gasoline Fuel Dispensing Nozzles:

The gasoline fuel dispensing nozzles are subject to R18-2-730.F. It was decided to prescribe minimal monitoring requirements for this activity.

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VIII. INSIGNIFICANT ACTIVITIES

The following table includes a list of activities proposed by Citizens to be insignificant. In addition, this table includes an evaluation of whether the activity can be deemed as insignificant pursuant to A.A.C. R18-2-101.54.

S. No	Activity	Determination	Comment
1.	Diesel fuel storage tank (50,000 gal) (installed in 1949)	Yes	A.A.C. R18-2-101.54.j
2.	Diesel fuel storage tank (50,000 gal) (installed in 1997)	No	It is subject to 40 CFR Subpart Kb.
3.	Lube oil storage tank (10,000 gal)	Yes	A.A.C. R18-2-101.54.c
4.	Diesel engine day tank (four 300 gallon compartments)	Yes	A.A.C. R18-2-101.54.c
5.	2 underground gasoline storage tanks (2000 gallon)	Yes	A.A.C. R18-2-101.54.b
6.	Underground diesel storage tank (500 gallon)	Yes	A.A.C. R18-2-101.54.c
7.	Diesel fuel dispensing nozzle	Yes	A.A.C. R18-2-101.54.j
8.	Solvent degreasing	No	It is subject to A.A.C. R18-2-730.F
9.	Painting	No	It is subject to A.A.C. R18-2-727